CLAIMS:

We claim:

- 1) A spherical, luminescent golf ball comprising:
 - a) an outer layer or layers of translucent polymer material, allowing for transmission and diffusion of light; enclosing
 - b) a substantially spherical inner core shell of a translucent polymer material; containing
 - two components of a chemiluminescent liquid mixture contained within said inner core shell which, when mixed, becomes luminescent, creating light energy;
 - c) a membrane, partition, chambers or capsule within said inner core as means to hold said components of chemiluminescent liquid mixture separate within said inner core shell;
 - d) a means to break, tear, open or otherwise affect said membrane, partition, chambers or capsule, such as a pull cord or pin extending through said outer layers to the inner core, or by structural design of said membrane, partition, chambers or capsule to be affected under compression as caused by impact from a golf club, thereby allowing said components to mix or cause to be mixed, activating said chemiluminescent liquid mixture; and
 - e) a dimpled outer surface.